

Feb. 9, 1948

Administrator A-1

Assistant Administrator for Safety Regulation A-270

Civil Aeronautics Board Report of Accident at Alexandria, Virginia,
October 11, 1946.

Reference is made to the correspondence routing slip from Mr. Lee, dated December 12, 1947, requesting comments on the Civil Aeronautics Board report of the Eastern Airlines accident at Alexandria, Virginia, October 11, 1946.

On page 9 of the subject report appears a discussion of the procedure to be followed in executing a landing at Washington National Airport after completing the radio range procedure, assuming a ceiling of 500 feet. From a statement made in this paragraph, it is evident that the Board does not have a full understanding of the procedure followed in landing at Washington National Airport under instrument conditions. Rather than attempt a straight-in approach from the range station to the nearest usable portion of the airport, a distance of 9/10 of a mile, it is feasible to follow the northeast leg of the range after passing the station at the established altitude of 600 feet and fly for 30 seconds at 140 mph or 35 seconds at 120 mph (1.13 miles) on this leg, meanwhile letting down the necessary 100 feet at 500 feet per minute. At this point, having reached 500 feet and presumably becoming contact, the aircraft is in position to make a turn to the left of 70° and land on Runway 33 without circling

On page 10 of the report the belief is expressed that, because of "considerable hazard" to "circling underneath", consideration should be given to revising ceiling and visibility minimums. The Civil Aeronautics Administration does not consider that a hazard exists in circling under a 500 feet ceiling at Washington National Airport. On page 11 of the subject report are cited several high obstructions in the area within two miles of the airport boundary which, it is contended, constitute a hazard. A study of the Airport Obstruction Plan and Profile for Washington National Airport, prepared by the Coast and Geodetic Survey to the specifications of the Civil Aeronautics Administration, dated October, 1947, reveals one obstruction higher than 300 feet above the elevation of the airport within the two-mile area. This obstruction is the prominent and well-lighted Washington Monument which is located in an air space reservation. There are within the two-mile area two obstructions which closely approximate 300 feet. These obstructions, 299 feet and 298 feet, are located 1.8 miles and 1.9 miles respectively from the airport boundary. Because of their proximity to the two-mile limit and because of the fact that they are not in line with any runway at Washington National Airport, it does not appear necessary in the interest of safety to base the ceiling on their existence. This is in accordance with the Administration's policy that obstructions within a two-mile limit will normally be taken into consideration. The policy is so worded to allow the exercise of good judgment and common sense in the establishment of minimum ceilings. The report also cites other obstructions purported to be greater than 400 feet in the area within 2 and 2½ miles from the boundary of the airport. A study of the Airport Obstruction Plan and Profile reveals only

one such obstruction more than 400 feet above the elevation of the airport in this area. Again, this is the Washington Monument.

Should a pilot feel the necessity for circling under a 500 feet ceiling at Washington National Airport, it is naturally assumed that his circles would be initiated over the airport. In such a case, it is not necessary for any aircraft to proceed more than 2 miles from the airport in an attempt to line up with any runway. The obstructions which would be encountered during such circling are described above. The obstructions reported by the Civil Aeronautics Board to be encountered while circling do not appear on the Airport Obstruction Plan and Profile.

From the foregoing it will be seen that the Board's statement, that exceptions to the obstruction clearance values set forth in SRI 349 have been granted with too much liberality, lacks foundation. The Board also has expressed the belief that more suitable facilities should be installed at airports such as Washington National Airport when the juxtaposition of the range station and the airport is not as might be desired. It will be noted that in June, 1947, an Instrument Landing System was commissioned at Washington National Airport and is presently authorized for use by most of the air carriers, including Eastern Airlines, serving Washington. GCA is also available for emergency use and to monitor approaches made on the radio range and the ILS.

It should be noted that there exists a discrepancy between the pilot's statement that he executed the standard missed approach procedure and the actual times of his reports over the range station. From this discrepancy it is evident that the standard missed approach procedure was not followed. From the fact that the crash occurred some 4 miles southwest of the range station and at an altitude much lower than the minimum approach altitude, it appears that the established procedure was not adhered to. Another fact worthy of consideration is the report given by the Weather Bureau observer at Washington National Airport that an Eastern Airlines' representative had requested that the ceiling previously reported as measured and below minimums be changed to "indefinite" or "estimated".

When such a change was made the pilot was able to leave his last approved cruising altitude and initiate his instrument approach to Washington National Airport in compliance with the then effective Civil Air Regulation 61.752 despite the fact the ceiling was actually below the minimum authorized for Eastern Airlines' operation. On June 21, 1945, the Administrator had recommended to the Civil Aeronautics Board a revision of this regulation since in its current form it was practically impossible to enforce. This recommendation was repeated on March 8, 1946. The recommended revision would have deleted the word "measured" from Civil Air Regulation 61.752 and thus made possible effective enforcement of this regulation and the avoidance of this accident and others similar to it which had occurred previously. The fact that some three months after this crash the cited regulation was amended as recommended indicates the

Board's concurrence in its importance. The amendment made possible the enforcement of the regulation by effectively prohibiting the practice of "taking a look" under a low ceiling. It further eliminated the practice of airline personnel requesting Weather Bureau observers to change their reports from "measured ceiling" to "indefinite ceiling" in order to enable a pilot to approach below actual minimums and yet satisfy the requirements of Civil Air Regulation 61.752.

(Original signed
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